

CLAIMS

1. Catalyst containing active elements including copper deposited on an alumina, said alumina containing at least 0.03 g of titanium, expressed in metal form, per kg of alumina.

5 2. Catalyst according to Claim 1, characterized in that the alumina contains at most 15 g of titanium, expressed in metal form, per kg of alumina.

3. Catalyst according to either one of Claims 1 and 2, characterized in that the alumina contains at least 0.05 g of titanium, expressed in metal form, per kg of alumina.

10 4. Catalyst according to any one of Claims 1 to 3, characterized in that the alumina contains at most 5 g of titanium, expressed in metal form, per kg of alumina.

15 5. Catalyst according to any one of Claims 1 to 4, characterized in that it contains, in addition to copper, at least one other active element selected from alkali metals, alkaline-earth metals, rare earth metals and metals of the group consisting of ruthenium, rhodium, palladium, osmium, iridium, platinum and gold.

20 6. Catalyst according to any one of Claims 1 to 5, characterized in that the active element or elements other than copper are selected from the alkali metals, alkaline-earth metals and rare earth metals.

7. Catalyst according to any one of Claims 1 to 6, characterized in that the active elements are copper, magnesium and at least one alkali metal.

8. Use of an alumina containing at least 0.03 g of titanium, expressed in metal form, per kg of alumina, as catalyst support.

25 9. Use of an alumina containing at least 0.03 g of titanium, expressed in metal form, per kg of alumina, as catalyst diluent.

10. Method involving a gas phase reaction, characterized in that the gas phase reaction is catalysed by a catalyst according to any one of Claims 1 to 7.

11. Method according to Claim 10, characterized in that the gas phase reaction is an oxidation reaction of a hydrocarbon.

12. Method according to either one of Claims 10 and 11, characterized in that the gas phase reaction is an oxychlorination reaction of a hydrocarbon
5 containing 1 to 4 carbon atoms.

13. Method according to any one of Claims 10 to 12, characterized in that the gas phase reaction is the oxychlorination reaction of ethylene to 1,2-dichloroethane.